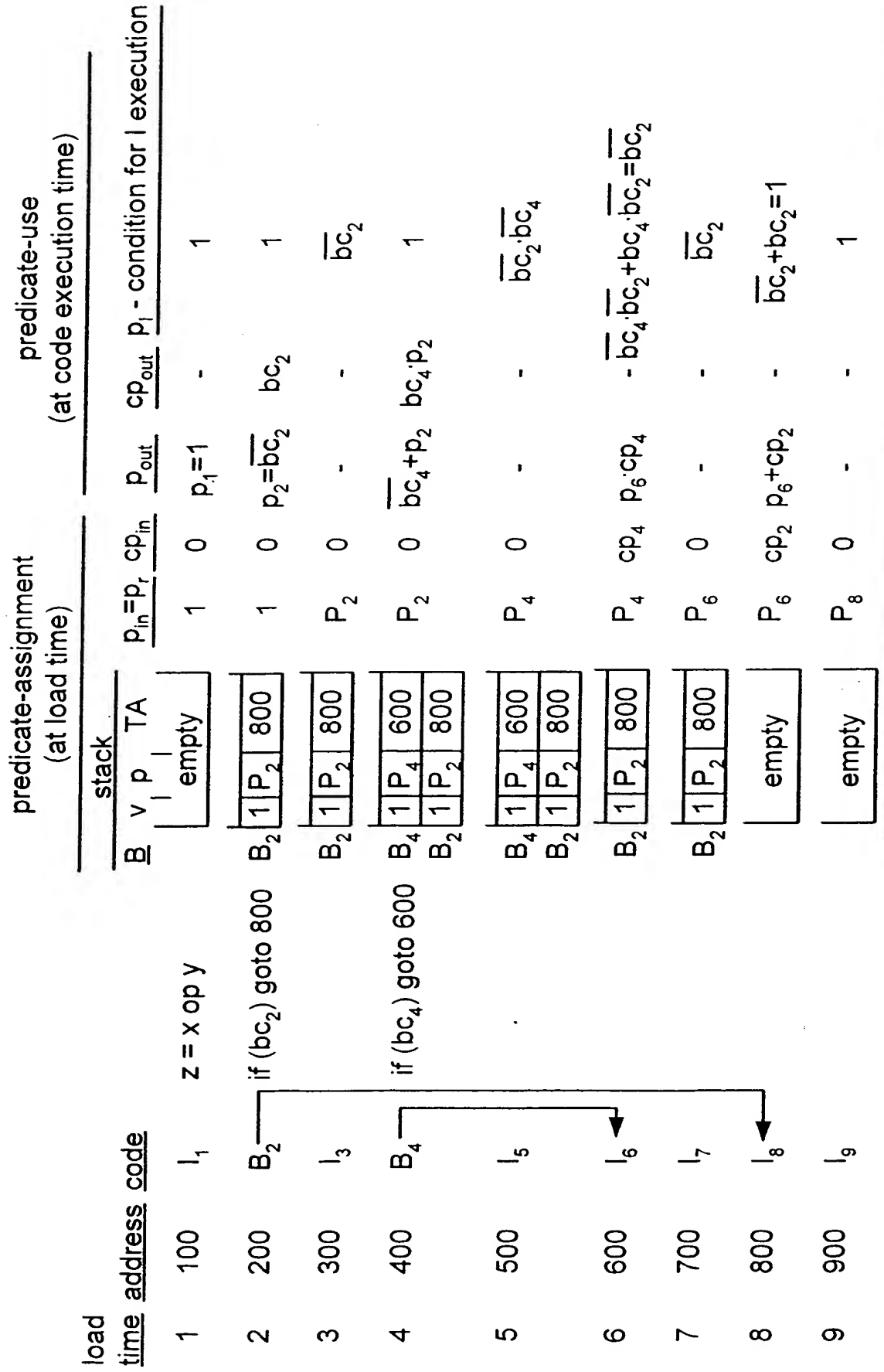


FIG. 2

load time	address	code	predicate-assignment (at load time)			predicate-use (at code execution time)		
			stack			$p_{in} = p_r$	cp_{in}	p_{out}
			B	v	TA			
1	100	l_1			empty	1	0	$p_1 = 1$
		$z = x \text{ op } y$						
2	200	B_2			$1 P_2 400$	1	0	$p_2 = \overline{bc_2}$
		if (bc_2) goto 400						bc_2
3	300	l_3			$1 P_2 400$	P_2	0	-
								$\overline{bc_2}$
4	400	l_4			empty	P_2	cp_2	$\overline{bc_2} + bc_2 = 1$
5	500	l_5			empty	P_4	0	-
								$p_4 = 1$
6	600	B_6			$1 P_6 800$	P_4	0	$\overline{bc_6} \cdot p_4$
		if (bc_6) goto 800						$bc_6 \cdot p_4$
7	700	l_7			$1 P_6 800$	P_6	0	-
								$\overline{bc_6}$
8	800	l_8			empty	P_6	cp_6	$\overline{bc_6} + bc_6 = 1$
9	900	l_9			empty	P_8	0	-
								$p_6 = 1$

Equations - for "T": $p_1 = p_{out} = p_{in} + cp_{in}$; for "B": $p_{out} = \overline{bc} \cdot p_{in}$; $cp_{out} = bc \cdot p_{in}$

FIG. 3



Equations - for "T": $p_1 = p_{out} = p_{in} + cp_{in}$; for "B": $p_{out} = \overline{bc} \cdot p_{in}$; $cp_{out} = bc \cdot p_{in}$

FIG. 4

load time address code		predicate-assignment (at load time)			predicate-use (at code execution time)		
		stack					
1	100	I_1	$z = x \text{ op } y$	B_2	V_1	P_1	TA
2	200	B_2	if (bc_2) goto 600	B_2	1	P_2	600
3	300	I_3		B_2	1	P_2	600
4	400	B_4	if (bc_4) goto 800	B_4	1	P_4	800
5	500	I_5		B_2	1	P_2	600
6	600	I_6		B_4	1	P_4	800
7	700	I_7		B_2	0	P_2	600
8	800	I_8		B_4	1	P_4	800
9	900	I_9		B_2	0	P_2	600

$P_1 = 1$	$P_2 = 0$	$P_4 = 0$	$cp_{in} = 0$	$cp_{out} = 1$	$p_1 = 1$	$p_2 = 0$	$p_4 = 0$	$cp_{out} = 1$	$p_1 = 1$	$p_2 = 0$	$p_4 = 0$	$cp_{out} = 1$
$P_2 = 1$	$P_4 = 0$	$P_6 = 0$	$cp_{in} = 0$	$cp_{out} = 0$	$p_2 = 1$	$p_4 = 0$	$p_6 = 0$	$cp_{out} = 0$	$p_2 = 1$	$p_4 = 0$	$p_6 = 0$	$cp_{out} = 0$
$P_4 = 1$	$P_6 = 0$	$P_8 = 0$	$cp_{in} = 0$	$cp_{out} = 0$	$p_4 = 1$	$p_6 = 0$	$p_8 = 0$	$cp_{out} = 0$	$p_4 = 1$	$p_6 = 0$	$p_8 = 0$	$cp_{out} = 0$
$P_6 = 1$	$P_8 = 0$	$P_{10} = 0$	$cp_{in} = 0$	$cp_{out} = 0$	$p_6 = 1$	$p_8 = 0$	$p_{10} = 0$	$cp_{out} = 0$	$p_6 = 1$	$p_8 = 0$	$p_{10} = 0$	$cp_{out} = 0$

Equations - for "T": $p_1 = p_{out} = p_{in} + cp_{in}$; for "B": $p_{out} = bc \cdot p_{in}$; $cp_{out} = bc \cdot p_{in}$

FIG. 5

load time address		code		predicate-assignment (at load time)			predicate-use (at code execution time)			p _i - condition for I execution		
				stack			p _{in} =p _r	cp _m	p _{out}		cp _{out}	
				B	v	p	TA					
1	100	I ₁	z = x op y	empty				1	0	p ₁ =1	-	1
2	200	B ₂	if (bc ₄) goto 800	B ₂	1	P ₂	1000	1	0	p ₂ =bc ₂	bc ₂	1
3	300	I ₃		B ₂	1	P ₂	1000	P ₂	0	-	-	bc ₂
4	400	B ₄	if (bc ₄) goto 800	B ₄	1	P ₄	800	P ₂	0	bc ₄ +p ₂	bc ₄ p ₂	1
				B ₂	1	P ₂	1000					
5	500	I ₅		B ₄	1	P ₄	800	P ₄	0	-	-	bc ₄ bc ₂
				B ₂	1	P ₂	1000					
6	600	B ₆	if (bc ₆) goto 1200	B ₆	1	P ₆	1200	P ₄	0	bc ₆ p ₄	bc ₆ p ₄	1
				B ₄	1	P ₄	800					
				B ₂	1	P ₂	1000					
7	700	I ₇		B ₆	1	P ₆	1200	P ₆	0	-	-	bc ₆ bc ₄ bc ₂
				B ₄	1	P ₄	800					
				B ₂	1	P ₂	1000					
8	800	I ₈		B ₆	1	P ₆	1200	P ₆	cp ₄	p ₆ +cp ₄	-	(bc ₆ bc ₄ bc ₂)+(bc ₄ bc ₂) =(bc ₆ +bc ₄)bc ₂
				B ₄	0	P ₄	800					
				B ₂	1	P ₂	1000					
9	900	I ₉		B ₆	1	P ₆	1200	P ₈	0	-	-	(bc ₆ +bc ₄)bc ₂
				B ₄	0	P ₄	800					
				B ₂	1	P ₂	1000					
10	1000	I ₁₀		B ₆	1	P ₆	1200	P ₈	cp ₂	p ₈ +cp ₂	-	((bc ₆ +bc ₄)bc ₂)+bc ₂ =bc ₆ +bc ₄ +bc ₂
11	1100	I ₁₁		B ₆	1	P ₆	1200	P ₁₀	0	-	-	(bc ₆ +bc ₄)bc ₂
12	1200	I ₁₂		empty				P ₁₀	cp ₆	p ₁₀ +cp ₆	-	bc ₆ +bc ₄ +bc ₂ + (bc ₆ bc ₄ bc ₂)=1
13	1300	I ₁₃		empty				P ₁₂	0	-	-	1

Equations - for "T": p_i=p_{out}=p_{in}+cp_{in}; for "B": p_{out}=bc p_{in}; cp_{out}=bc p_{in}

FIG. 6